

Appl. No. 10/700,775
Atty. Docket No. 9418
Amdt. dated 28 April, 2006
Reply to Office Action of October 19, 2005
Customer No. 27752

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

Please replace the paragraph on page 13, lines 3-20, with the following amended paragraph:

Alternatively, as shown in Fig. 8 insertion may be aided through the use of any applicator 62 adapted from the prior art for use with the shaped tampon. Prior art applicators of typically a "tube and plunger" type arrangement may be plastic, paper, or other suitable material. Additionally, a "compact" type applicator is also suitable. Since shaped tampons offer an additional consumer benefit of aesthetic appeal, it is often desirable to combine the shaped tampon with an applicator type which enables the user to observe at least a portion or the whole shape of the shaped tampon. Two techniques which allow the user to better notice the shape of the tampon are to either make visual observation possible through the use of translucent or even transparent applicator materials, or to provide a tampon applicator insertion end that better follows and hence better displays the profiled shape of the enclosed shaped tampon than the typical commercial tampon applicators comprising straight-walled cylindrical inserter tubes often made from molded plastic or laminated cardboard tubes. As used hereinafter, the phrase "translucent" is meant to include completely transparent materials as well as those having a lesser degree of transparency, yet allow for the user to see through the material to a degree sufficient to ascertain at least a portion of the shape of the tampon even in the absence of conforming the applicator shape to the profiled shape of the tampon. Optionally, an applicator 62 may employ both techniques allowing the user to see the shaped tampon prior to use through a translucent applicator which also conforms to the profiled shape of the enclosed tampon.

Please replace the paragraph on page 13, lines 21-28 with the following amended paragraph:

The insertion end of the applicator 62 may be rigid or flexible. Rigid insertion end structures could be shaped in a suitable manner (e.g., injection molding) to provide at least a degree of profiled shape observation. Alternatively, insertion ends of applicators 62 made from flexible or pliable materials, such as films, paper, flexible wovens, or non-wovens, can also be used. Such flexible or pliable insertion ends include those which partially or fully enclose the tampon comprising a "sleeve" or a "tube" (as in U.S. Patent

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Nos. 2,922,422 and 2,922,423); a "sheath" (as in U.S. Patent Nos. 2,092,427 and 3,749,093); a "barrel" (as in U.S. Patent No. 5,135,475); a "bag" (as in U.S. Patent No. 3,358,686); or a "film enclosure" (as in U.S. Patent No. 4,610,659).

Please replace the paragraph beginning on page 13, line 31 to page 14, line 12 with the following amended paragraph:

As shown in Fig. 3 ~~The~~ the shaped tampons 20 of the present invention can optionally employ a wrapper 60 to package the tampon to provide sanitary protection and ease in handling. The wrapper 60 is tightly conforming to the outer surface 50 of the tampon 20 in order to visually show the consumer the tampon 20 packaged therein. Tightly conforming wrappers 60 are particularly useful when the shaped tampons are intended to be used digitally and therefore are not housed in an applicator prior to use. The wrappers 60 should substantially enclose each individual tampon 20 and are intended to be removed prior to insertion and use. "Tightly conforming" means that there is substantially no visually noticeable void space between the wrapper 60 and the tampon 20. In other words, the perimeter of the tightly conforming wrapper 60 does not exceed the perimeter of the outer surface 50 of the tampon 20 by more than about 50%, alternatively not more than about 30%. In yet another embodiment, the wrapper 60 on average does not exceed the perimeter more than about 10% or even not more than about 5%. Since the perimeter of a tampon typically changes as a function of the length of the tampon 20, especially because the tampon is shaped as described herein, the aforementioned limits for the tight conformation of the wrapper 60 apply to at least all substantially lengthwise portions of the outer surface of the tampon 20, and preferably to all portions of the outer surface 50 of the tampon 20.

Please replace the paragraph on page 14, lines 13-22 with the following amended paragraph:

Wrappers 60 can be made to be tightly conforming through use of a variety of known techniques and/or materials. The wrapper material used can be any material suitable to be used for hygienically wrapping tampons. Suitable wrapper materials for use herein include flexible polymeric films, having a thickness of less than about 1 mm. Examples for wrapper materials suitable for use with the present invention are polymeric films made of polyethylene, polypropylene, polyester, polystyrene, cellophane, polyamide, polyvinyl chloride, ethylene-vinyl acetate copolymer, and the like. Polyolefin

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materials such as polyethylene and polypropylene, or polyvinyl chloride are particularly useful as heat shrinkable materials and can be so used by one of ordinary skill in the art to form tightly conforming wrappers 60, typically utilizing heat seals to close off the wrapper edges.

Please replace the paragraph beginning on page 14, line 23 to page 15, line 8 with the following amended paragraph:

Generally, the wrapper 60 of the present invention, in its most generic form, can be made by wrapping wrapper material around the tampon and sealing it onto itself for closing the wrapper material in order to substantially enclose the tampon. The sealing may be facilitated by pressure and optionally heat. In another embodiment of the invention, a sleeve of the wrapper film material is formed and connected with an adhesive in an overlapping region. The sleeve can be put over the tampon and then heat shrunk. If needed, the end of the wrapper 60 being assigned to the withdrawal and/or the insertion end region of the tampon could be closed with an adhesive in order to form a pouch that is heat shrunk in the next step. When heat-shrinkable material is used, it can be shrunk after being closed around the tampon, decreasing the dimensions of the wrapper material so that the wrapper 60 tightly conforms to the outer surface of the tampon. "Heat-shrinkable," as used herein, refers to materials which have an extension typically in at least two dimensions, e.g., films or nonwovens, and which reduce their extension in at least one of the dimensions when being heated to an elevated temperature above normal storage or usage temperatures, but being lower than their melting temperature or being lower than their decomposition temperature in case the material decomposes prior to melting. The same can be achieved by using stretch film or even a pre-stretched elastic material, which is allowed to relax into a non- or low-tensed or non- or low-stretched state after being closed around the tampon. Another alternative for achieving a tightly conforming wrapper 60 is partially closing the wrapper 60 after having wrapped the wrapper material around the tampon, then evacuating the interior of the wrapper 60 by application of vacuum, and finally, completely closing the wrapper 60.

Please replace the paragraph beginning on page 1, line 32 to page 2, line 2 with the following amended paragraph:

This invention relates to shaped tampon having varying density regions. A tampon is formed into a self-sustaining shape having an outer surface, which is

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substantially serpentine. The tampon has a longitudinal centerline and a cross-sectional area defined[[,]] orthogonal to the centerline and a mass of absorbent material formed into a self-sustaining shape.

Please replace the paragraph on page 2, lines 3-14 with the following amended paragraph:

The tampon has an insertion end region, a withdrawal end region, and a center region. The insertion end region has an insertion end fiber density. The insertion end could be tapered or flared. Also, the tampon has a withdrawal end region. ~~The withdrawal end region, which~~ is opposite to the insertion end region. The withdrawal end has a withdrawal end region fiber density. The withdrawal end region could be flared or tapered. Alternatively, as shown in Fig. 7 the withdrawal end could be asymmetric about the longitudinal centerline of the tampon. The withdrawal end region has a withdrawal edge, which has a withdrawal edge fiber density and is located at the most distal end of the tampon along the longitudinal centerline comprising a withdrawal edge fiber density. Finally, the shaped tampon has a center region which is intermediate to the insertion end region and to the withdrawal end region. The center region comprises a center region fiber density. The withdrawal end region fiber density is greater than the center region fiber density. The insertion end fiber density and the center region fiber density may be about equal.

Please insert the following paragraph into the first line following THE SUMMARY OF INVENTION section on page 1, line 31 but before the paragraph that begins on page 1, line 32:

A tampon is provided which comprises a longitudinal centerline and a cross-sectional area defined orthogonal to said centerline and a mass of absorbent material formed into a self-sustaining shape, wherein the self-sustaining tampon comprises an insertion end region comprising an insertion end fiber density, a withdrawal end region, wherein the withdrawal end region comprises a withdrawal end region fiber density, and a center region intermediate said insertion end region and the withdrawal end region, wherein the center region comprises a center region fiber density, wherein the self-sustaining shape has an outer surface which is substantially serpentine; and wherein the withdrawal end region fiber density is greater than the center region fiber density.

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Please replace the paragraph on page 7, lines 3-8 with the following amended paragraph:

The phrase "**maximum perimeter region**" refers to a region on the tampon measuring 5 mm on either side along the longitudinal centerline 22 of the maximum perimeter of the insertion end region. Thus, the maximum perimeter region is a region that is about 10 mm long. The phrase "**minimum perimeter region**" refers to a region on the tampon measuring 5 mm on either side along the longitudinal centerline 22 of the minimum perimeter of the center region. Thus, the minimum perimeter region is a region that is about 10 mm long.

Please insert the following paragraphs into the BRIEF DESCRIPTION OF THE DRAWINGS section at line 19 on page 3:

FIG. 7 is a perspective view of an embodiment of the shaped tampon of the present invention wherein the withdrawal end is asymmetric about the longitudinal centerline of the tampon.

FIG. 8 is a lengthwise cross-section along the longitudinal centerline showing the shaped tampon of the present invention housed in an applicator.

Please see a replacement (or new) abstract on the attached separate sheet